

***AMENDMENTS TO THE CLAIMS:***

This listing of claims will replace all prior versions of claims in the application.

***LISTING OF CLAIMS:***

1. (Withdrawn) A computer management system comprising:  
a workstation including at least one of the group consisting of a keyboard, a video monitor, a cursor control device, an audio device, and an auxiliary peripheral device.  
a plurality of computers;  
a switching system with circuitry for transmitting keyboard, cursor control device, audio, and auxiliary peripheral device signals from said workstation to one of said remote computers, said switching system further comprising circuitry for transmitting keyboard, video, cursor control device, and auxiliary peripheral device signals from said one of said remote computers to said workstation;  
at least one eight conductor cable for coupling at least one of said computer interface and said user interface to said management unit;  
wherein said user interface receives at least one of user keyboard signals, user mouse signals, and user audio signals from said user keyboard, said user mouse, and said user audio device, respectively; and  
wherein said user interface transmits said user keyboard signals, said user mouse signals, and said user audio signals via said eight conductor cable to said computer via said management unit.
2. (Withdrawn) A computer management system according to Claim 1, wherein said computer interface is further coupled to at least one computer audio device.
3. (Withdrawn) A computer management system according to Claim 2,

wherein said computer interface receives computer keyboard signals from said computer, computer mouse signals from said computer, computer video signals from said computer, and computer audio signals from at least one of said computer and said computer audio devices; and

wherein said computer interface transmits said computer keyboard signals, said computer video signals, said computer mouse signals, and said computer audio signals via said eight conductor cable to said user interface via said management unit.

4. (Withdrawn) A computer management system according to Claim 1, wherein said eight conductor cable comprises at least one Registered Jack 45 ("RJ-45") connector.

5. (Withdrawn) A computer management system according to Claim 3, wherein said eight conductor cable comprises a first, second, and third twisted pair of wires that transmit red, green, and blue components of said computer video signals, respectively, and further comprises a fourth twisted pair of wire that transmits at least one of said computer keyboard signals, said computer mouse signals, and said computer audio signals.

6. (Withdrawn) A computer management system according to Claim 5, wherein a computer horizontal synchronization signal is encoded onto one of said green component, said red component, and said blue component of said computer video signals.

7. (Withdrawn) A computer management system according to Claim 5, wherein a computer vertical synchronization signal is encoded onto one of said green component, said red component, and said blue component of said computer video signals.

8. (Withdrawn) A computer management system according to Claim 2, wherein at least one of said user audio device and said computer audio device are selected from the group consisting of a microphone, an analog playback device, a digital playback device, a cassette

player, a compact disc player, a Digital VideoDisc player, a television, a computer, a telephone, a cellular telephone, a projector, a camera, and a personal digital assistant.

9. (Withdrawn) A computer management system according to Claim 2, wherein said computer audio device is at least one of an audio in port of said computer and an audio out port of said computer.

10. (Withdrawn) A computer management system according to Claim 2, wherein at least one of said user audio device and said computer audio device are selected from the group consisting of a speaker, an audio headset, a projector, an analog audio recording device, a digital audio recording device, a second computer, a cassette recorder, a Compact Disc writer, a Digital VideoDisc writer, a television, a camera, a telephone, a cellular telephone, and a personal digital assistant.

11. (Withdrawn) A computer management system according to Claim 1, further comprising:

an audio cable for coupling said user audio device to said user interface and for coupling said computer audio device to said computer interface.

12. (Withdrawn) A computer management system according to Claim 11, wherein said audio cable bidirectionally transmits audio signals.

13. (Withdrawn) A computer management system according to Claim 2, further comprising:

an audio cable for coupling said computer interface to at least one of an audio in port of said computer, an audio out port of said computer, and said computer audio device,  
wherein said audio cable bidirectionally transmits audio signals.

14. (Withdrawn) A computer management system according to Claim 12,

wherein said computer interface cable comprises at least one of a first connector for coupling said computer interface cable to said computer interface, a second connector for coupling said computer interface cable to a keyboard port of said computer, a third connector for coupling said computer interface cable to a video port of said computer, a fourth connector for coupling said computer interface cable to a mouse port of said computer, a fifth connector and a sixth connector for coupling said computer interface cable to a first and a second of said computer audio devices, and a seventh and an eighth connector for coupling said computer interface cable to an audio in port of said computer and an audio out port of said computer;

wherein said first computer audio device comprises an audio input device; and

wherein said second computer audio device comprises an audio output device.

15. (Withdrawn) A computer management system according to Claim 14, wherein said computer interface cable transmits

at least one of said user keyboard signals, said user mouse signals, and said user audio signals from said computer interface to at least one of said computer and said computer audio devices; and

wherein said computer interface cable transmits at least one of said computer keyboard signals, said computer video signals, said computer mouse signals, and said computer audio signals to said computer interface from at least one of said computer and said computer audio devices.

16. (Withdrawn) A computer management system comprising:

at least one computer;

at least one computer interface coupled to said computer via a computer interface cable;

at least one management unit coupled to said computer interface; and

at least one user interface coupled to said management unit and coupled to at least one of a user keyboard, a user video monitor, a user mouse, a user audio device, and a user auxiliary peripheral device;

wherein said user interface receives at least one of user keyboard signals, user mouse signals, user audio signals, and user auxiliary peripheral device signals; and

wherein said user interface transmits said user keyboard signals, said user mouse signals, and said user auxiliary peripheral device signals to said computer via said management unit.

17. (Withdrawn) A computer management system according to Claim 16, wherein said computer interface is further coupled to at least one of a computer audio device and a computer auxiliary peripheral device.

18. (Withdrawn) A computer management system according to Claim 17, wherein said computer interface receives computer

keyboard signals from said computer, computer mouse signals from said computer, computer video signals from said computer, computer audio signals from at least one of said computer and said computer audio devices, and computer auxiliary device signals from said computer auxiliary peripheral device; and

wherein said computer interface transmits said computer keyboard signals, said computer video signals, said computer mouse signals, said computer audio signals, and said computer auxiliary peripheral signals to said user interface via said management unit.

19. (Withdrawn) A computer management system according to Claim 16, wherein said user interface transmits said user keyboard signals, said user mouse signals, said user audio signals, and said user audio peripheral device signals to said computer via said management unit.

20. (Withdrawn) A computer management system according to Claim 18, further including:

at least one eight conductor cable for coupling at least one of said computer interface and said user interface to said management unit.

21. (Withdrawn) A computer management system according to Claim 20, wherein said eight conductor cable comprises at least one Registered Jack 45 ("RJ-45") connector.

22. (Withdrawn) A computer management system according to Claim 20, wherein said eight conductor cable comprises a first, second, and third twisted pair of wires that transmit red, green, and blue components of said computer video signals, respectively, and further comprises a fourth twisted pair of wire that transmits at least one of said computer keyboard signals, said computer video signals, said computer mouse signals, said computer audio signals, and said computer auxiliary peripheral device signals.

23. (Withdrawn) A computer management system according to Claim 22, wherein a computer horizontal synchronization signal is encoded onto one of said green component, said red component, and said blue component of said computer video signals.

24. (Withdrawn) A computer management system according to Claim 22, wherein a computer vertical synchronization signal is encoded onto one of said green component, said red component, and said blue component of said computer video signals.

25. (Withdrawn) A computer management system according to Claim 17, further comprising:

at least one of a user auxiliary peripheral module and a computer auxiliary peripheral module;

wherein said user auxiliary peripheral module couples said user auxiliary peripheral device to said user interface; and

wherein said computer auxiliary peripheral module couples said computer auxiliary peripheral device to said computer interface.

26. (Withdrawn) A computer management system according to Claim 25, wherein said user auxiliary peripheral module and said computer auxiliary peripheral module are coupled to said user interface and said computer interface, respectively, via a forty pin ribbon cable.

27. (Withdrawn) A computer management system according to Claim 17, wherein at least one of said user auxiliary peripheral device and said computer auxiliary peripheral device are selected from the group consisting of a serial port device, a Universal Serial Bus device, a Recommended Standard 232 device, a PS/19 device, a parallel device, a firewire device, a Registered Jack 28 device, a Registered Jack 21 device, a Registered Jack 45 device, a Registered Jack 48 device, a British Naval Connector device, a Centronics device, an Advanced Technology device, a Super-Video device, a Digital Video Interface device, an Integrated Development Environment device, a Fiber Distributed Data Interface device, a switch closure device, or a Small Computer System Interface device.

28. (Withdrawn) A computer management system according to Claim 17, wherein at least one of said user auxiliary peripheral device and said computer auxiliary peripheral device are selected from the group consisting of a keyboard, a mouse, an optical mouse, a trackball, a Universal Serial Bus keyboard adapter, a Universal Serial Bus mouse adapter a second computer, a port expander, a Bluetooth device, a cellular telephone, a web camera, a floppy disk drive, a hard disk drive, a Universal Serial Bus Flash Drive, a digital media reader, a digital media writer, a microphone, a speaker, a subwoofer, a scanner, a copier, a printer, a projector, a television, an

analog monitor, a digital monitor, a video capture device, a modem, a hub, a router, a switch, a cable modem, a Digital Subscriber Line modem, a wireless network hub, a wireless network router, a wireless access point, a print server, a wireless print server, an Ethernet adapter, an analog audio playback device, an analog audio recording device, a digital audio playback device, a digital audio recording device, a tape drive, a storage backup device, a joystick, a game pad, a power supply, an uninterruptible power supply, a Universal Serial Bus hub, a Compact Disc Read Only Memory device, a Compact Disc write device, a Compact Disc re-write device, an audio device, a Digital VideoDisc Random Access Memory device, a camera, a cassette recorder, a headset, a camcorder, a fingerprint reader, a retina scanner, a biometric authentication device, and a personal digital assistant.

29. (Withdrawn) A computer management system according to Claim 17, wherein at least one of said user audio device and said computer audio device is a microphone, an analog playback device, a digital playback device, a cassette player, a compact disc player, a Digital VideoDisc player, a television, a computer, a telephone, a cellular telephone, a projector, a camera, and a personal digital assistant.

30. (Withdrawn) A computer management system according to Claim 17, wherein said computer audio device is at least one of an audio in port of said computer and an audio out port of said computer.

31. (Withdrawn) A computer management system according to Claim 17, wherein at least one of said user audio device and said computer audio device is a speaker, an audio headset, a projector, an analog audio recording device, a digital audio recording device, a second computer, a cassette recorder, a Compact Disc writer, a Digital VideoDisc writer, a television, a camera, a telephone, a cellular telephone, and a personal digital assistant.



32. (Withdrawn) A computer management system according to Claim 16, further comprising:

at least one audio cable;

wherein said audio cable couples at least one of said user audio device to said user interface and said computer audio device to said computer interface.

33. (Withdrawn) A computer management system according to Claim 32, wherein said audio cable bidirectionally transmits audio signals.

34. (Withdrawn) A computer management system according to Claim 17, further comprising:

an audio cable for coupling said computer interface to at least one of an audio in port of said computer, an audio out port of said computer, and at least one of said computer audio devices;

wherein said audio cable bidirectionally transmits audio signals.

35. (Withdrawn) A computer management system according to Claim 25,

wherein said computer interface cable comprises at least one of a first connector for coupling said computer interface cable to said computer interface, a second connector for coupling said computer interface cable to a keyboard port of said computer, a third connector for coupling said computer interface cable to a video port of said computer, a fourth connector for coupling said computer interface cable to a mouse port of said computer, a fifth connector and a sixth connector for coupling said computer interface cable to a first and a second of said computer audio devices, a seventh and an eighth connector for coupling said computer interface cable to an audio in port of said computer and an audio out port of said computer, and a ninth

connector for coupling said computer interface cable to at least one of said auxiliary peripheral device and said auxiliary peripheral device module;

wherein said first computer audio device comprises an audio input device; and

wherein said second computer audio device comprises an audio output device.

36. (Withdrawn) A computer management system according to Claim 35,

wherein said computer interface cable transmits at least one of said user keyboard signals, said user mouse signals, said user audio signals, and said user auxiliary peripheral device signals from said computer interface to at least one of said computer and said computer audio devices; and

wherein said computer interface cable transmits at least one of said computer keyboard signals, said computer video signals, said computer mouse signals, said computer audio signals, and said computer auxiliary peripheral device signals to said computer interface from at least one of said computer and said computer audio devices.

37. (Currently Amended) A computer-readable storage medium encoded with a computer program comprising instruction that, when executed, operate to cause ~~method of transmitting signals via~~ a computer management system to perform operations comprising the steps of:

receiving keyboard signals, video signals, mouse signals, and audio signals at a transmission node;

forming a 64 bit data packet comprising

a first section of 2 bits including overhead data,

a second section of 34 bits including audio signals,

a third section of 10 bits including keyboard and mouse signals, and

a fourth section of 18 bits including auxiliary data ~~said keyboard signals, said mouse signals, and said audio signals;~~

encoding a vertical synchronization signal onto one of a red, blue, and green component of said video signals;

encoding a horizontal synchronization signal onto one of said red component, said blue component, and

said green component of said video signals;

transmitting said data packet to a receiving node via a first pair of wires in an eight conductor cable;

transmitting said red component of said video signals to said receiving node via a second pair of wires in said eight conductor cable;

transmitting said blue component of said video signal to said receiving node via a fourth pair of wires in said eight conductor cable; and

transmitting said green component of said video signal to said receiving node via a third pair of wires in said eight conductor cable.

38. (Currently Amended) A computer-readable storage medium ~~method~~ according to Claim 37, further comprising ~~the steps of~~:

converting said data packet to a differential signal;

converting said red component of said video signals to a differential signal;

converting said green component of said video signals to a differential signal; and

converting said blue component of said video signals to a differential signal.

39. (Canceled)

40. (Currently Amended) A computer-readable storage medium ~~method~~ according to Claim 37, wherein said audio device is selected from the group consisting of a microphone, an analog playback device, a digital playback device, a cassette player, a compact disc player, a Digital

Video Disc player, a television, a computer, a telephone, a cellular telephone, a projector, a camera, and a personal digital assistant.

41. (Currently Amended) A computer-readable storage medium ~~method~~ according to Claim 37, wherein said audio device is at least one of an audio in port of said computer and an audio out port of said computer.

42. (Currently Amended) A computer-readable storage medium ~~method~~ according to Claim 37, wherein said audio 10 device is selected from the group consisting of a speaker, an audio headset, a projector, an analog audio recording device, a digital audio recording device, a second computer, a cassette recorder, a Compact Disc writer, a Digital Video Disc writer, a television, a camera, a telephone, a cellular telephone, and a personal digital assistant.

43. (Currently Amended) A computer-readable storage medium encoded with a computer program comprising instruction that, when executed, operate to cause ~~method of transmitting signals via~~ a computer management system a computer to perform operations comprising the steps of:

receiving keyboard signals, video signals, mouse signals, and auxiliary peripheral device signals at a transmission node ;

forming a 64 bit data packet comprising

a first section of 2 bits including overhead data,

a second section of 34 bits including audio signals,

a third section of 10 bits including keyboard and mouse signals, and

a fourth section of 18 bits including auxiliary data said keyboard signals,

said mouse signals, and said auxiliary peripheral signals ;

encoding a vertical synchronization signal onto one of a red, blue, and green component of said video signals ;

encoding a horizontal synchronization signal onto one of said red component, said blue component, and said green component of said video signals ;

transmitting said data packet to a receiving node via a first pair of wires in an eight conductor cable;

transmitting said red component of said video signals to said receiving node via a second pair of wires in said eight conductor cable ;

transmitting said blue component of said video signal to said receiving node via a fourth pair of wires in said eight conductor cable ;

and transmitting said green component of said video signal to said receiving node via a third pair of wires in said eight conductor cable.

44. (Currently Amended) A computer-readable storage medium ~~method~~ according to Claim 43, further comprising the steps of:

converting said data packet to a differential signal;

converting said red component of said video signals to a differential signal;

converting said green component of said video signals to a differential signal; and

converting said blue component of said video signals to a differential signal.

45. (Canceled)

46. (Currently Amended) A computer-readable storage medium ~~method~~ according to claim [[45]] 43, wherein said auxiliary peripheral device is selected from the group consisting of a serial port device, a Universal Serial Bus device, a Recommended Standard device, a PS/2 device, a parallel device, a firewire device, a Registered Jack device, a Registered Jack device, a Registered Jack device, a Registered Jack device, a British Naval Connector device, a Centronics device, an Advanced Technology device, a Super-Video device, a Digital Video Interface device, an Integrated Development Environment device, a Fiber Distributed Data Interface device, a switch closure device, or a Small Computer System Interface device.

47. (Currently Amended) A computer-readable storage medium ~~method~~—according to Claim [[45]] 43, wherein said auxiliary peripheral device is selected from the group consisting of a keyboard, a mouse, an optical mouse, a trackball, a Universal Serial Bus keyboard adapter, a Universal Serial Bus mouse adapter a second computer, a port expander, a Bluetooth device, a cellular telephone, a web camera, a floppy disk drive, a hard disk drive, a Universal Serial Bus Flash Drive, a digital media reader, a digital media writer, a microphone, a speaker, a subwoofer, a scanner, a copier, a printer, a projector, a television, an analog monitor, a digital monitor, a video capture device, a modem, a hub, a router, a switch, a cable modem, a Digital Subscriber Line modem, a wireless network hub, a wireless network router, a wireless access point, a print server, a wireless print server, an Ethernet adapter, an analog audio playback device, an analog audio recording device, a digital audio playback device, a digital audio recording device, a tape drive, a storage backup device, a joystick, a game pad, a power supply, an uninterruptible power supply, a Universal Serial Bus hub, a Compact Disc Read Only Memory device, a Compact Disc write device, a Compact Disc re-write device, an audio device, a Digital Video Disc Random Access Memory device, a camera, a cassette recorder, a headset, a camcorder, a fingerprint reader, a retina scanner, a biometric authentication device, and a personal digital assistant.